TITANO®
Reusable and single-use instruments
TITANO®
Reusable and single-use instruments
The natural extension of your hand!

No matter what Oertli® operating equipment you prefer to use, you will always hold the same exquisite TITANO® instruments in your hand! The TITANO® name is synonymous with incomparable functionality, ergonomics and quality. Oertli® products are manufactured by Oertli® – world class since 1955.

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Phaco Instruments

Oertli® Phaco instruments are products that are attuned to each other. They are particularly optimised for easyPhaco® Technology and MICS. Our phaco instruments enable the best possible energy transfer and work with high vacuum and flow. Thanks to Oertli® phaco instruments, you can always work with a stable anterior chamber.
easyPhaco® Technology

Oertli easyPhaco® Technology makes fluidics to your best friend. Thanks to the elaborated fluidics concept of easyPhaco®, you can work with maximum flow and vacuum settings. This results in unprecedented chamber stability, perfect emulsification and most efficient fragment aspiration.

Thanks to the intelligent needle design and the world class Oertli® pump systems, easyPhaco® Technology brings visible and perceptible advantages:

- Smooth and efficient aspiration with excellent followability and holdability of fragments
- Concentrated axial ultrasound and best power coupling for perfect emulsification
- Vacuum surge is eliminated thanks to capillary aspiration path

Oertli easyPhaco® Technology is available in three different tip sizes, covering all incisions whether you want to work with sub 2 mm co-axial micro phaco or standard incision sizes up to 3.2 mm.

easyPhaco® is a development of Oertli® R&D in scientific co-operation with Prof. Rupert Menapace, Vienna.
<table>
<thead>
<tr>
<th>EasyTip CO-MICS for incisions of 1.6 - 1.8 mm</th>
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<table>
<thead>
<tr>
<th>Recommended settings for easyPhaco®</th>
<th>Minimum</th>
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<tr>
<td>Phaco 1 (Grooving)</td>
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<td>Phaco 2</td>
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<td>Vacuum (mmHg)</td>
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<td>Venturi Pump</td>
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<tr>
<td>Vacuum (mmHg)</td>
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<tr>
<td>Vacuum effect (%)</td>
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<tr>
<td>Flow (ml/min)</td>
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<tr>
<td>Vacuum (mmHg)</td>
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- Recommended bottle height: 100 cm above patient eye
- Recommended additional settings: pulse mode, 40 Hz, 60% cool for Phaco 2
**HEXADISQ® Phaco Handpiece**

With an outer diameter of 13 mm, irrigation line lying within and a feather-like weight of 47 grams, the HEXADISQ® Phaco Handpiece which is completely made of titanium, has set the benchmark since 2002. The handpiece is equipped with 6 piezo-crystals and is ideal for easyPhaco® Technology and MICS. The HEXADISQ® Phaco Handpiece has a 12-month guarantee.

VG800011
U/S Phaco Handpiece
**easyPhaco® Tips, reusable**
The easyPhaco® Tips pave the way for modern micro-incision surgery with incisions of 1.6 up to 3.2 mm. The well-thought-out design allows safe work with very high vacuum and flow values and provides an absolutely stable anterior chamber, also after the breaking of the occlusion.

**VV800831**
easyTip CO-MICS for incisions of 1.6 - 1.8 mm, 30°

**VV800833**
easyTip CO-MICS for incisions of 1.6 – 1.8 mm, 53°

**VV603231**
Irrigation sleeve silicone for easyTip CO-MICS, grey

**VV800735A**
easyTip 2.2mm for incisions of 2.2 – 2.4 mm, 30°

**VV800735**
easyTip 2.2mm for incisions of 2.2 – 2.4 mm, 40°

**VV603220**
Irrigation sleeve silicone for easyTip 2.2 mm, transparent

**VV800740**
easyTip 2.8mm for incisions of 2.8 – 3.2 mm, 30°

**VV603209**
Irrigation sleeve silicone for easyTip 2.8 mm, blue
Phaco Tips for Pars Plana Vitrectomy, reusable

VV800051
Phaco Tip for Pars Plana Vitrectomy, 20G

VE800100
Titanium key for phaco tips
suitable for all listed tips

VV803100
Silicone test chamber for phaco
**easyPhaco® Tips, single-use**

**VV806833A**
easyTip CO-MICS for incisions of 1.6 - 1.8 mm, 30°, sterile, box of 10

**VV80683**
easyTip CO-MICS for incisions of 1.6 - 1.8 mm, 53°, sterile, box of 10

**VV806835A**
easyTip 2.2mm for incisions of 2.2 - 2.4 mm, 30°, sterile, box of 10

**VV806835**
easyTip 2.2mm for incisions of 2.2 - 2.4 mm, 40°, sterile, box of 10

**VV806840**
easyTip 2.8mm for incisions of 2.8 - 3.2 mm, 30°, sterile, box of 10

Sleeve, test chamber and emergency key are included with every single-use easyTip
Irrigation / Aspiration Instruments

Where Oertli TITANO® reusable instruments allow multiple use, all instruments are available as single-use item as well. Oertli® single-use I/A instruments provide the utmost in stability, safety, sterility and hygienics. Complex and cost intensive re-sterilization processes are obsolete and easy handling for you and your theater staff is guaranteed. Besides, all single-use instruments are particularly of ergonomic design allowing access from any position.
Quick Tip System, reusable
Thanks to the sophisticated snap-on lock closing, all «Quick Tip» tips can be changed in a sterile way within seconds and turned into the desired position. The I/A tubes can be put on and taken off without a rotary motion. This enables quick switching between phaco and I/A handpieces.

VE655000
I/A Handpiece «Quick Tip»

VE603010
Irrigation handpiece with Luer adapter

VE655020
Luer adapter for I/A handpiece VE655000

VE655435
I/A «Quick Tip», straight, 1.8 mm diameter, 0.35 mm opening

VE655235
I/A «Quick Tip», 45°, 1.8 mm diameter, 0.35 mm opening
**VE655015**
Aspiration «Quick Tip», straight, 0.30 mm opening (sleeve for incisions of 1.6 - 1.8 mm)

**VE655035**
Aspiration «Quick Tip», straight, 0.35 mm opening (sleeve for incisions of 2.2 - 3.2 mm)

**VE655515**
Aspiration «Quick Tip», 45°, 0.30 mm opening (sleeve for incisions of 1.6 - 1.8 mm)

**VE655535**
Aspiration «Quick Tip», 45°, 0.35 mm opening (sleeve for incisions of 2.2 - 3.2 mm)

**VV603231**
Irrigation sleeve silicone for easyTip CO-MICS, grey (for VE655515, VE655015)

**VV603220**
Irrigation sleeve silicone for easyTip 2.2 mm, transparent (for VE655035, VE655535)

**VV603209**
Irrigation sleeve silicone for easyTip 2.8 mm, blue (for VE655035, VE655535)
Bimanual I/A Instruments, reusable
Separate, handy suction and rinse handpieces are either led through one paracentesis and the phaco incision or through two paracenteses. This technique enables great manoeuvrability in and accessibility to the whole capsule.

VE654100
Bimanual instrument set (Irrigation & Aspiration)

VE654101
Bimanual instrument set, roughened for the polishing of the capsule (Irrigation & Aspiration)

Bimanual I/A Instruments, single-use

VV650010
I/A bimanual set, sterile, box of 10
Coaxial I/A Instruments, single-use

VV651010  
I/A coaxial handpiece CO-MICS, sterile, box of 10

VV651011  
I/A coaxial handpiece 2.2 mm, sterile, box of 10

VV651012  
I/A coaxial handpiece 2.8 mm, sterile, box of 10
Diathermy Instruments

In 1972 Oertli® was the first to introduce bipolar diathermy in the eye. The choice of frequency and material determined in collaboration with Prof. Klöti has proven to be still optimal today, both for haemostasis and for tissue dissection. All Oertli® surgery apparatuses are equipped with an RF control unit that enables fine adjustment and modulation of diathermic energy. Additionally, OS3, faros™ and CataRhex®SwissTech support the Instant Diathermy Function.
**Diathermy Handpieces, reusable**
The elegant and slim Diathermy Handpieces and the attachable tips with platinium electrodes make Oertli® Diathermy the precision instrument for a broad range of applications: micro- and macro-haemostasis, capsulotomy and glaucoma surgery.

**VE201710**
Diathermy Handpiece long, appropriate for vitrectomy

**VE201712**
Diathermy Handpiece short for capsulotomy

**Diathermy Tips, reusable**

**VE201722**
Eraser Tip for Macrodiathermy, 50° bevelled

**VE201723**
Endo Diathermy Tip 20G, 28 mm, 54°

**VE201733**
Endo Diathermy Tip 23G, 28 mm, 54°

**VE201732**
Endo Diathermy Tip 25G, 28 mm, 54°

**VE201724**
Endo Diathermy Tip 20G, 28 mm, 54°
**Bipolar Forceps, reusable**

**VE203902**
Bipolar forceps, curved, for haemostasis and co-adaptation of conjunctiva (needs to be attached to VE201710 or VE201712)
HFDS Glaucoma Procedure with abee® Tip

HFDS stands for high frequency deep sclerotomy (formerly known as STT) and is an ab interno-glaucoma operation in which you use bipolar RF diathermy. HFDS was first presented by Bojan Pajic in 1999. From a first study group (53 eyes) in 2002 there are now long-term results stretching over 72 months. From an average pre-operative value of $25.6 \pm 2.3$ mmHg the pressure reduced to $14.8 \pm 1.7$ mmHg.

These are results that, in contrast to methods like trabeculectomy or viscocanalostomy, are really very promising. In addition, HFDS is attractive for the following reasons:

- High success rate
- Effective, lasting lowering of pressure
- Very low complication rate
- Particularly easy and fast intervention
- No application of anti-metabolites or needling
- Perfect in combination with cataract surgery

The HFDS function is optionally available with Oertli® surgery systems (OS3, faros™, CataRhex®SwissTech). Besides, you need the Oertli abee® Glaucoma Tip (VE201751) and the diathermy handpiece (VE201712) to carry out the HFDS procedure successfully.

abee® Glaucoma Tip, reusable

VE201751
abee® Glaucoma Tip for ab interno high frequency deep sclerotomy prodecure
Capsulotomy Instruments

RF capsulotomy, an elegant alternative to capsulorhexis for difficult cases, has proven itself in hundreds of thousands of cases since 1991. The capsule bag is opened with RF current. For this purpose the front chamber is filled with a viscoelastic medium and the capsulotomy tip is guided along the intended opening of the capsule while delivering diathermic energy. No tearing with the forceps or needle is needed. A smooth gliding without pressure is sufficient. The application can also be used underneath the iris, i.e. without direct sight.

In principle, RF capsulotomy is an easy alternative to the capsule staining. Capsule staining only improves visibility; RF capsulotomy, however, opens the capsule safely even where there is bad visibility.

Capsulotomy Tips, reusable

VE201712
Diathermy Handpiece short

VE201726
Capsulotomy Tip, regular

VE201730
Capsulotomy Tip, especially for the postoperative treatment of shrunken capsules (Rhexis Phimosis)
Vitrectomy Instruments

Oertli® set a solitary standard in 1971 for the quality of cuts with the Klöti stripper. The unmatched quality of cuts provided by this instrument lives on today in Oertli® high-speed vitrectomy cutters. While vitrectomies have become a common surgical procedure, Oertli® cutting quality continues to remain unique.
**SUS Cutter with Electric Drive**

With Oertli® there is no difference between anterior and posterior vitrectomy. The electrically driven SUS cutter works from the precise single cut up to the efficient high speed application with up to 1200 cuts per minute, exactly according to the pedal presetting. The SUS cutting heads have a variable opening and are all hand-finished during manufacture. This explains their unique cutting quality.

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**SUS Cutter, reusable**

**VE103100**
SUS Magnet drive autoclavable, easy to clean with rinse attachment, variable aspiration opening, 3 m cable

**VG601351**
Irrigation sleeve for SUS and Twinac® cutters, autoclavable, 1.5 mm diameter, with tube and Luer adapter (20G only)

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**SUS Cutter, single-use**

**VV103006**
SUS Cutting head, 20G, guillotine, sterile, box of 6

**VV103306**
SUS Cutting head, 23G, guillotine, sterile, box of 6
**Twinac® SPS Cutter with Pneumatic Drive, single-use**

The pneumatically driven Twinac® vitrectomy cutter is based on a unique drive concept with twin action: both the cutting and the aspiration cycles are controlled with pressurised air. This method enables a particularly precise control of the vitrectomy process, from individual cuts up to 5000 cuts per minute (depending on the control unit). An additional advantage of the Twinac® double action is the absence of vibrations as it is common with models that are equipped with return springs. The ergonomics are excellent. Both guidance with the fingertips (remote holder) and holding as you would grip a writing utensil are possible.

**VV104010**
Twinac® Vitrectomy Stripper 20G, sterile, box of 10

**VV106010**
Twinac® Vitrectomy Stripper 23G, sterile, box of 10

**VV105010**
Twinac® Vitrectomy Stripper 25G, sterile, box of 10

**Twinac® Push-pull Principle**

It has to be made clear that even with a high cutting rate there has to be enough power for the closing and opening of the guillotine. Cutters equipped with return springs do not manage this. Therefore, Oertli® already developed the principle of the dual pneumatic drive back in 2002. The Twinac® Cutter develops, also up to 5000 cuts, very efficient cutting power and guarantees an aspiration time of 50%. Only in this way can tissues really be cut and removed.

**Aspiration: Pneumatic push-pull action**
**Infusion Terminals, reusable**
These autoclavable terminals, which are designed to be sutured to the eye, may be used with BSS or air.

**VE601002**  
Infusion terminal 20G, 2.5 mm long, with tube and Luer

**VE601003**  
Infusion terminal 20G, 4.0 mm long, with tube and Luer

**VE601007**  
Infusion terminal 20G, 6.0 mm long, with tube and Luer

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<th>Infusion Terminals, single-use</th>
<th>Silicone Application Sets, single-use</th>
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<td>VV690230</td>
<td>VV690310</td>
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<td>Infusion terminal 20G, 6.0 mm, for BSS, sterile, box of 10</td>
<td>Silicone application set, 20 CC, sterile, box of 10</td>
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<td>VV690220</td>
<td>VV690311</td>
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<tr>
<td>Infusion terminal 20G, 4.0 mm, for BSS, sterile, box of 10</td>
<td>Silicone application set, for Opsia syringe, sterile, box of 10</td>
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<td>VV690231</td>
<td>VV690100</td>
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<tr>
<td>Infusion terminal 20G, 6.0 mm, for silicone oil, sterile, box of 10</td>
<td>Air delivery line with filter, sterile, box of 10</td>
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<td>VV690320</td>
<td>VV690300</td>
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<tr>
<td>Infusion terminal 20G, 4.5 mm, «no stitch», sterile, box of 10</td>
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<tr>
<td>VV690330</td>
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<tr>
<td>Infusion terminal 20G, 6.0 mm, «no stitch», sterile, box of 10</td>
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Pars Plana Micro Incision System PMS

The Oertli Autoseal PMS® Pars Plana Micro-Incision System sets the standard for transconjunctival access to the vitreous body. Thanks to the self-sealing 23G pilot tubes, eye pressure remains steady at any time. The silicon sealing remains inside the pilot tube, the operative field in the eye is therefore not unnecessarily restricted. The instruments glide resistance-free in the tube and can be changed as needed.

### Two Step PMS, single-use

- **VV123110**
  - Two Step PMS autoseal 23G, 4.5 mm, sterile, box of 10

- **VV125010**
  - Two Step PMS autoseal 25G, 4 mm, sterile, box of 10

### One Step PMS, single-use

- **VV123111**
  - One Step PMS autoseal 23G, 4.5 mm, sterile, box of 10

- **VV125110**
  - PMS Incision template, sterile, box of 10
Endo Illumination Instruments

The light sources of Oertli® surgical devices are equipped with an adapter which accommodates the optical instruments as single-use light conductors (micro-connector). Up to two light instruments with micro-connection can be connected simultaneously.
Illumination Instruments, single-use

VV300101
Endo Illuminator 20G, 90°, sterile, micro-connector, box of 10

VV300103
Endo Illuminator 23G, 90°, sterile, micro-connector, box of 10

VV300105
Endo Illuminator 25G, 90°, sterile, micro-connector, box of 10

VV300131
Endo Illuminator 20G, 30°, sterile, micro-connector, box of 10

VV300191
Endo Illuminator Panorama 20G, shielded, micro-connector, sterile, box of 10

VV300201
Microhook with light 20G, sterile, micro-connector, single use, box of 10

VV300194
Endo Illuminator Panorama, 23G, shielded, micro-connector, sterile, box of 10
Reusable and single-use instruments
Reprocessing and sterilisation
All products marked with a ☐ are supplied in a sterile condition and are designed for single-use only. They must not be reused.
All other products can be treated and sterilised in accordance with Oertli® instructions TN999042 «Instructions for reprocessing of products designed for reuse». The procedures described in TN999042 have been validated in accordance with ISO 17665-1. The procedure stipulated consists of steam sterilisation in accordance with the standard methods detailed in EN ISO 17665-1, EN13060/EN285. Sterilisation at 134°C / 20 min is permissible.

Container recommended for sterilisation:
VE904705 Sterilisation container for all Oertli TITANO® instruments, with platform and silicone mat, plastic, with labelling plates.

Standards and quality assurance
Oertli TITANO® instruments are manufactured according to quality system ISO 13485. With few exceptions, these instruments are Class 11a products that may only be used in combination with Oertli® control equipment. They conform to one or more of the following standards: ISO 11135-1, ISO 17665-1, EN556-1, IEC 60601-1, ISO 10993-1

Oertli® uses the following standard dimensions (outer diameter)
19G 1.05 mm
20G 0.89 mm
23G 0.64 mm
25G 0.51 mm

All details in this catalogue were correct at the time of publication. There may be changes without notice as a result of enhancements to the design or safety of products. The details specified in the relevant quotation or delivery documentation shall apply.